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10/715,752

11/18/2003

Andrea Branca

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08/23/2006

EXAMINER

MAZUMDAR, SONYA

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ART UNIT

PAPER NUMBER

1734

DATE MAILED: 08/23/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | |
|------------------------------|--------------------------------------|--------------------------------------|--|
| Office Action Summary | Application No. 10/715,752 | Applicant(s) BRANCA ET AL. | |
| | Examiner Sonya Mazumdar | Art Unit 1734 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 January 2006 and 27 June 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4, 7 and 10-14 is/are rejected.
- 7) ☒ Claim(s) 5, 6, 8 and 9 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 January 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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DETAILED ACTION

Continued Examination

1. This office action is in response to the Request for Continued Examination filed on June 27, 2006.

Claim Rejections - 35 USC § 102/103

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148

USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating

obviousness or nonobviousness.

4. Claim 2 is rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Hefe (US 5,569,348).

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Hefele teaches a method of coating an adhesive onto fabric. The adhesive is applied onto a surface of a roller, i.e. first tool (12), in the form of a multitude of beads by means of a coater unit (28) that has a multitude of applicators, in the form of surface cavities, and a hot melt doctor blade (32) to assist the gravure printing process. The coater unit is positioned above the surface of the roller (12) and heated to 140 °C. (abstract; column 6, lines 26-48; column 7, lines 4-13; column 9, lines 20-29; Figure 3). The adhesive is transferred to a final carrier (18) supported by two rollers (column 6, lines 50-53).

Although it is not expressly taught by Hefele to apply an adhesive coating from a coater unit between 70°C and 250 °C, it is inherent that the adhesive coating will be applied in this range if the coater unit is heated to 140°C. However, if it is not inherent, it would have been obvious for one having ordinary skill in the art to do so to have an adhesive of appropriate temperature, flow, and adhesive characteristics for coating a porous, fibrous web. In the case where the claimed ranges "overlap or lie inside ranges disclosed by the prior art" a *prima facie* case of obviousness exists. *In re Wertheim*, 541 F.2d 257, 191 USPQ 90 (CCPA 1976); *In re Woodruff*, 919 F.2d 1575, 16 USPQ2d 1934 (Fed. Cir. 1990) (see MPEP 2144.05)

Claim Rejections - 35 USC § 103

5. Claims 1, 2, and 3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sirota (US 3,574,153) in view of Koehn (US 6,475,283) and Goodnow et al. (US 4,906,335)

Sirota teaches a process of applying hot melt adhesive compositions onto flexible web substrates. A pot, i.e. coater unit (10), dispenses adhesive (11) over a roller (12) and

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the adhesive application is controlled by a doctor blade (13) and applied to the substrate which is pulled over a pressure roller (15) (abstract; column 5, line 16 and lines 44-48). The adhesive is applied at temperature in the range of 250 °F-400 °F, or 121 °C-204 °C (column 5, lines 24-25).

Sirota does not teach applying adhesive as a multitude of beads with a coater unit having a multitude of applicators. Koehn teaches applying a patterned (block) adhesive by means of nozzles (6) supported on a bar (5) (column 1, lines 25-31; column 3, lines 37-38; Figures 1 and 2).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to perform coating as Koehn taught and would have been motivated to do so the adhesive can refrain from leakage and thus, no time consuming cleaning procedure is necessary after applications.

Furthermore, Sirota does not teach positioning a doctor blade at a certain angle tangent to the surface of a roller. Goodnow et al. teach optimizing the angle of a doctor blade against a rotating surface (column 1, lines 20-34).

Although Goodnow et al. do not specify a certain angle of the doctor blade tangent to the surface of a roller, the positioning of the doctor blade is taught so material is applied evenly and no damage or overflow can potentially occur. Therefore, it would have been obvious for one having ordinary skill in the art at the time the invention was made to use the teaching of Goodnow et al. to position a doctor blade accurately.

6. Claims 1, 2, 3, and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lender et al. (EP 0978263) in view of Koehn (US 6,475,283) and Goodnow et al. (US 4,906,335)

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Lender et al. teach a process of applying hot melt adhesive compositions onto articles. A coater unit (36) dispenses adhesive on an engraved roller (31) and the adhesive application is controlled by a doctor blade (35), applied to the article (11) applied at an average temperature 110 °C and is pulled around a roller (11) (abstract; column 9, lines 17-18; column 10, lines 45-58; column 11, lines 7-12; Figures 1 and 3).

Lender et al. do not teach applying adhesive as a multitude of beads with a coater unit having a multitude of applicators. Koehn teaches applying a patterned (block) adhesive by means of nozzles (6) supported on a bar (5) (column 1, lines 25-31; column 3, lines 37-38; Figures 1 and 2).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to perform coating as Koehn taught and would have been motivated to do so the adhesive can refrain from leakage and thus, no time consuming cleaning procedure is necessary after applications.

Furthermore, Lender et al. does not teach positioning a doctor blade at a certain angle tangent to the surface of a roller. Goodnow et al. teach optimizing the angle of a doctor blade against a rotating surface (column 1, lines 20-34).

Although Goodnow et al. do not specify a certain angle of the doctor blade tangent to the surface of a roller, the positioning of the doctor blade is taught so material is applied evenly and no damage or overflow can potentially occur. Therefore, it would have been obvious for one having ordinary skill in the art at the time the invention was made to use the teaching of Goodnow et al. to position a doctor blade accurately.

7. Claims 1, 3, and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yajima et al. in view of Herzog (US 3,762,365) and Hefele (US 4,141,313).

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With respect to claim 1, Yajima et al. teach the patterned dot deposition of a liquid adhesive onto the outer surface of an article by means of a stamp roller provided with a pattern of depression pits where the adhesive is deposited. The surface of the first roller is contacted with a blade tangential to the surface of the roller and lies with its end firmly against the surface of the roller. The adhesive is drawn off the stamp roller and is directly applied through contact with the surface of a cloth on a pressure take-off roller. (abstract; column 1, lines 7-13 and line 19; column 2, lines 35-38; Figures 1 and 3)

Yajima et al. do not teach heating a coater unit placed around the engraved roller to a specified temperature. Herzog teaches maintaining a temperature of a coating substance in a melted condition between 60°C to 180 °C using heating elements around a coating unit (column 4, lines 9-12, lines 36-39, and lines 64-67).

It would have been obvious for Yajima et al. to maintain the coating unit at a specific temperature Herzog had taught because one would have been motivated to have an adhesive of appropriate temperature, flow, and adhesive characteristics for coating a porous, fibrous web. In the case where the claimed ranges "overlap or lie inside ranges disclosed by the prior art" a *prima facie* case of obviousness exists. *In re Wertheim*, 541 F.2d 257, 191 USPQ 90 (CCPA 1976); *In re Woodruff*, 919 F.2d 1575, 16 USPQ2d 1934 (Fed. Cir. 1990) (see MPEP 2144.05)

Also, Yajima et al. in view of Herzog do not teach a multitude of applicators and an angle of the scraper blade. Hefele teaches a method using two adhesive suppliers placed around the engraved roller. Also, the surface of the first roller is contacted with a blade with an angle of 40 degrees with the tangent of the surface of the roller and lies

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with its end firmly against its' surface (column 5, lines 37-40, 51-52; column 9, lines 35-38).

It would have been obvious to Yajima et al. in view of Herzog to use a multitude of applicators as well as a blade with a specified angle from the surface. One would have been motivated to do so because a multitude of applicators would provide a fuller adhesive pattern coating on the surface and the amount of adhesive shown in the pattern is dependent on the angle of the blade.

With respect to claim 3, Yajima et al. teach the use of a patterned stamp roller rotating in a counter-clockwise direction (Figure 1), but does not teach rotating the pressure take-off roller. However, it would have been obvious for Yajima et al. to rotate the pressure take-off roller in a clockwise direction for the cloth to be carried continuously along with the rotation of the patterned stamp roller, pinched between the peripheral surfaces of the pressure take-off roller and the stamp roller and making its exit after going through the rollers. (column 1, lines 49-55; column 3, lines 18-26)

With respect to claim 11, Yajima et al. teach the use of the engraved roller having depressions where the adhesive is inserted (column 1, lines 40-44; Figure 1).

4. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yajima et al. in view of Herzog and Hefeale as applied to claim 3, and further in view of Lender et al. (EP 0978263) and Friesch (US 5064492).

Even though Herzog teaches applying a coating at a heated temperature, Yajima et al. in view of Herzog and Hefeale do not teach heating the coater and the engraved roller and cooling the pressure take-off roller. Lender et al. teach to keep the coater and engraving roller at a high temperature (Lender et al. - column 18; lines 25-41) and

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Friesch teaches the cooling of the adhesive after imprinting on the substrate (Friesch - column 3, lines 52-59).

It would have been obvious for Yajima et al. in view of Herzog and Hefele to heat the coater and engraving roller and cool the pressure take-off roller. One would have been motivated to do so because the adhesive should be at a solid or semi-solid plastic state at temperatures at or below the usage temperature of the disposable absorbent product (Lender et al. – column 4, lines 52-56).

5. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yajima et al. in view of Herzog and Hefele (US 4,141,313) as applied to claim 3, and further in view of Hefele (US 5,569,348).

Yajima et al. in view of Herzog and Hefele ('313) do not teach the operation of a pressure take-off roller above 30 degrees Celsius. Hefele ('348) teaches cooling the carrier band coated with adhesive to room temperature, approximately 25 degrees Celsius, over a curved cooled surface. (column 7, lines 43-46)

It would have been obvious for Yajima et al. in view of Herzog and Hefele ('313) to operate the pressure take-off roller at room temperature as Hefele ('348) taught, and would have been motivated to do so because it would not require further energy or expense to maintain the roller at room temperature.

6. Claims 10, 12, and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yajima et al. in view of Herzog and Hefele ('313) as applied to claim 1, and further in view of Kaylor et al. (US 2003/0138570)

The teachings for claim 3 are as described above.

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Yajima et al. in view of Herzog, and Hefele do not teach the use of a take-off roller with a specified shore A hardness value. Kaylor et al. teach an impression roller supporting the substrate having a preferable Shore A hardness of 70 (paragraph 0051, lines 1-4).

It would have been obvious for Yajima et al. in view of Herzog and Hefele to use a roller having a Shore A hardness of 70 as Kaylor et al. taught, and would have been motivated to do so because Kaylor et al. teach such a roller is known and used in applying active material to a substrate, thus can be used by one of ordinary skill in the art.

Yajima et al. in view of Herzog and Hefele do not teach the use of the engraved roller with specified width and depth of the cavities. Kaylor et al. teach the width of the produced pattern ranging from about 0.1 microns to about 70 microns across (paragraph 0015). The depth of the cavities in the engraved roller used in the examples was specified as 51 microns (paragraph 0075).

It would have been obvious for Yajima et al. in view of Herzog and Hefele to use a roller having the previously specified width and depth of the cavities as Kaylor et al. taught, and would have been motivated to do so because Kaylor et al. teach such specifications of the roller as known and used in applying active material to a substrate, thus can be used by one of ordinary skill in the art. "Where the general conditions of a claim are disclosed in the prior art, it is not inventive to discover the optimum or workable ranges by routine experimentation." (MPEP § 2144.05)

Yajima et al. in view of Herzog and Hefele do not teach rotating the article around the pressure take-off roller, which exits at a specified angle. Kaylor et al. teach the

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contact angle of the active material with respect to the substrate is from about 30 to 70 degrees (paragraph 0016). It can be seen from Figure 1 that the contact angle and its' complementary angle, the exit angle of the formed web, are relatively congruent to each other.

It would have been obvious for Yajima et al. in view of Herzog and Hefe to rotate the substrate around the pressure take-off roller, contact the substrate with the adhesive, and have the web exit at a specified angle as Kaylor et al. taught, and would have been motivated to do so because Kaylor et al. teach such a method as known and used in applying a certain amount of active material to a substrate, thus can be used by one of ordinary skill in the art. "Where the general conditions of a claim are disclosed in the prior art, it is not inventive to discover the optimum or workable ranges by routine experimentation." (MPEP § 2144.05)

7. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yajima et al. in view of Herzog and Hefe (US 4,141,313), and Hefe (US 5,569,348) as applied to claim 7, and further in view of Datta et al. (US 5,695,376)

The teachings of claim 7 are as described above.

Yajima et al. in view of Herzog, Hefe ('313) and Hefe ('348) do not teach using articles with a melting temperature of the articles lower than the engraving roller. Datta et al. teach forming personal care articles where the bonding process should keep the adhesive component melted, but below the melting point of the structural component. (column 7, lines 56-60; column 10, lines 10-14)

It would have been obvious for Yajima et al. in view of Herzog, Hefe ('313) and Hefe ('348) to use articles with a melting temperature lower than the engraving roller.

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One would have been motivated to do so since the roller will effectively soften the web and then allow the adhesive to adhere thereto more effectively only if the heated roller is kept at a temperature higher than the article temperature.

Allowable Subject Matter

8. Claims 5, 6, 8, and 9 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

References showed coaters or applicators to have a higher temperature than the engraving roller, or made no mention of the temperatures used. In Hefele, the adhesive is desired to be above its melting point and the engraving roller is maintained at 35 degrees Celsius (column 8, lines 10-32). In Lender et al. the adhesive has an application temperature higher than that of the printing roll. (column 4, lines 34-40).

References show a coater comprising a multitude of extruder applicators providing a multitude of extruded beads of active material, but do not mention having a pitch of a certain length. In Hefele, the coaters extrude the material into the depressions of the engraved roller to form sealed beads (column 1, lines 23-24 and lines 29-43;

Figure 1)

Claims 8 and 9 are dependant on claim 6.

Conclusion

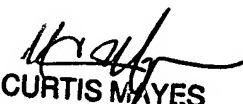
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sonya Mazumdar whose telephone number is (571) 272-6019. The examiner can normally be reached on 8AM-4:30PM.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christopher Fiorilla can be reached on (571) 272-1187. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


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